

group is chemically covalently linked to the modifier molecule. The other amide group is disposed in the chain and obtains the macromolecular character with a chemically covalent linkage. With this direct bonding of the amide groups, the maximally obtainable bonding strength is achieved.

In contrast, a modifier molecule which is linked by way of adsorption processes or ionic interaction effects is not covalently bonded and, under suitable conditions can always be released. Its bonding strength is significantly smaller.

In accordance with the invention, with the chemically covalent functionalization, consequently, polyamidimides are formed at the reaction site.

If needed for an understanding of the invention, the inventor can supply a publication describing the mechanism of the modification wherein the covalent bond between a polyamide-support structure or substrate and a modifier is described.

2. The rejection of claims 1 - 5, 7, 11- 15 and 17 under 35 USC 102(b) as being anticipated by US 5 941 182:

US 5 914 182 discloses a material with immobilized bioactive species. Herein, on a support member, a first layer with a polymer surface-active medium (polymeric linked to the support member. Furthermore, the polymer surface-active medium is cross-linked in itself.

To the first layer a second layer is linked by a hydrophilic polymer and at least a type of bioactive species is bonded to the second layer (see claim 1). As carrier component, a substrate of a polyamide may be used.

In contrast, in accordance with claim 1 of the present application, the modifier, for example polyethylenimine, is covalently linked to the polyamide substrate (carrier component), wherein the degree of cross-linkage of the modifier remains unchanged in its original chemical constitution. That means it is not interlinked in itself.

With the chemically covalent linkage between the substrate layer and the modifier according to the invention, the substrate material is limited to polyamide-like polymers and the modifier material is limited to primary and secondary amino groups containing modifiers. Only then are the functionalized bodies formed - in accordance with the invention.

US 5 194 182 teaches that a layer is applied to the substrate or support member which is not covalently linked to the substrate so that claims 1 -5, 7, 11 - 15 and 17 are certainly not anticipated by US 5 914 182.

Furthermore, since the layer applied to the substrate or support member is not covalently linked to the support member, it is necessary in accordance with the state of the art to provide a chemically non-covalently linked intermediate layer - which can be omitted in accordance with the present invention. Since the need for such an intermediate layer was based on an accepted practice - also used in US 5 914 182 -, it can hardly be said credibly that the omission of such an intermediate layer and the direct linking of the covalently functionalized body to a support member was obvious from the cited reference so that those claims and also claims 6, 8, 9, 10, 16, 18, 19 and 20, which all depend directly or indirectly on claim 1 and respectively, claim 11 cannot be considered to be obvious from the cited reference.

Reconsideration of the present invention as being obvious from the cited reference is therefore also requested.

Allowance of claims 1 - 20 is solicited.

Respectfully submitted,



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